

Comparisons of Job Characteristics

Focus Occupation: [Mechanical Engineers \(17-2141\)](#)

Associated Occupation: [First-Line Supervisors of Mechanics, Installers, and Repairers \(49-1011\)](#)

[Compare Knowledge](#)

[Compare Skills](#)

[Compare Abilities](#)

[Compare Detailed Work Activities](#)

[Compare Tools and Technologies](#)

<<	Focus occupation element is much lower
<	Focus occupation element is lower
0	Focus occupation element is at a similar level
>	Focus occupation element is at a higher level
>>	Focus occupation element is at a much higher level

Knowledge

Similarity of Focus Occupation to Associated Occupation: 63

Focus Occupation: Mechanical Engineers (17-2141)

Associated Occupation: First-Line Supervisors of Mechanics, Installers, and Repairers (49-1011)

Associated Occupation's Key Knowledge Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating		Evaluation of Focus Occupation
Mechanical	6.8	19.8	18.1	0	Current knowledge level may be sufficient
Administration and Management	8.4	16.2	10.0	<<	Extensive education and/or training may be required
Education and Training	9.2	14.0	10.2	<<	Extensive education and/or training may be required
Personnel and Human Resources	5.6	13.5	4.8	<<	Extensive education and/or training may be required
Production and Processing	6.0	13.5	14.2	0	Current knowledge level may be sufficient
Clerical	7.3	12.3	8.9	<<	Extensive education and/or training may be required
Engineering and Technology	5.7	12.2	21.5	>>	Current knowledge level is likely more than sufficient
Economics and Accounting	4.4	10.2	5.9	<<	Extensive education and/or training may be required
Building and Construction	4.0	9.3	6.4	<<	Extensive education and/or training may be required
Telecommunications	3.9	7.3	4.2	<<	Extensive education and/or training may be required

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Skills

Similarity of Focus Occupation to Associated Occupation: 9

Focus Occupation: Mechanical Engineers (17-2141)

Associated Occupation: First-Line Supervisors of Mechanics, Installers, and Repairers (49-1011)

Associated Occupation's Key Skills Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation
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Management of Personnel Resources	6.9	13.6	8.9	<<	Extensive development of skills in this area may be required
Monitoring	9.9	13.5	11.5	<	A higher skill level may be required
Time Management	8.9	13.0	9.7	<<	Extensive development of skills in this area may be required
Coordination	9.1	12.5	10.0	<	A higher skill level may be required
Quality Control Analysis	5.9	11.6	11.1	0	Current skill level may be sufficient
Negotiation	6.8	11.0	7.3	<<	Extensive development of skills in this area may be required
Troubleshooting	4.5	10.4	9.5	0	Current skill level may be sufficient
Equipment Maintenance	3.5	10.1	4.5	<<	Extensive development of skills in this area may be required
Repairing	3.4	10.0	3.6	<<	Extensive development of skills in this area may be required
Management of Financial Resources	3.3	9.8	5.8	<<	Extensive development of skills in this area may be required
Management of Material Resources	3.7	9.7	7.2	<<	Extensive development of skills in this area may be required
Equipment Selection	3.3	7.5	6.5	<	A higher skill level may be required

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Abilities		Similarity of Focus Occupation to Associated Occupation: 86			
Focus Occupation: Mechanical Engineers (17-2141) Associated Occupation: First-Line Supervisors of Mechanics, Installers, and Repairers (49-1011)					
Associated Occupation's Key Abilities Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation	
Flexibility of Closure	7.8	10.3	10.3	0	Current ability level may be sufficient
Auditory Attention	5.9	10.0	7.5	<<	Extensive improvement in abilities may be required
Hearing Sensitivity	5.6	9.7	8.1	<	Some improvement in abilities may be required
Speed of Closure	5.9	9.1	8.7	0	Current ability level may be sufficient
Memorization	5.6	8.4	7.2	<	Some improvement in abilities may be required
Sound Localization	2.2	6.0	2.1	<<	Extensive improvement in abilities may be required

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Activities that Both Occupations Have in Common		Similarity of Focus Occupation to Associated Occupation: 59
Focus Occupation: Mechanical Engineers (17-2141) Associated Occupation: First-Line Supervisors of Mechanics, Installers, and Repairers (49-1011)		

Work Activities	Exclusivity of Activity
Confer with engineering, technical or manufacturing personnel	25
Develop policies, procedures, methods, or standards	21
Diagnose mechanical problems in machinery or equipment	65
Direct and coordinate activities of workers or staff	3
Prepare reports	8
Read blueprints	10
Read schematics	34
Read technical drawings	7

Not all positions in these occupations will necessarily perform all of the listed activities. The exclusivity rating is an indication of how unique the activity is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations engage in that activity.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Tools and Technologies that Both Occupations Have in Common

Similarity of Focus
Occupation to Associated
Occupation: 83

Focus Occupation: Mechanical Engineers (17-2141)

Associated Occupation: First-Line Supervisors of Mechanics, Installers, and Repairers (49-1011)

Tools and Technologies	Exclusivity
Business function specific software	1
Computer printers	2
Computers	1
Content authoring and editing software	1
Data management and query software	1
Finance accounting and enterprise resource planning ERP software	2
Industry specific software	1
Integrated circuits	18

Not all positions in these occupations will necessarily use all of the listed tools and technologies. The exclusivity rating is an indication of how unique the tool or technology is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations use that tool or technology.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.